

IN THE CLAIMS:

Please cancel claims 1-24 and add new claims 25-34 as follows:

1-24. *(cancelled)*

~~25.~~¹ *(new)* A method for reducing the effects of multipath signal components associated with a received direct path signal comprising a carrier frequency that is modulated by a repetitive pseudo-random noise (PRN) code, comprising the steps of:

- generating a replica code corresponding to the pseudo-random noise (PRN) code of the received signal;
- correlating the received signal with the replica code to generate a first correlation result with a first delay time, where the first delay time is set outside of the assumed correlation function area;
- correlating the received signal with the replica code to generate a second correlation result with a second delay time, where the second delay time is set between the first delay time and assumed correct delay time of the correlation function
- determining if the correlation results of the first and second delay times are substantially equal to each other and, if the first and second correlation results are not substantially equal to each other, adjusting the correlation timing so as to cause the first and second correlation results to be substantially equal to each other.

~~26.~~² *(new)* A method for reducing the effects of multipath signal components as defined in claim ~~25~~¹, wherein the pseudo-random noise (PRN) code has a plurality of chips of code length, and wherein the first delay time is a delay of approximately -0.5 chip from the second delay time.

~~27.~~³ *(new)* A method for reducing the effects of multipath signal components as defined in claim ~~26~~², wherein the second delay time is approximately one chip from the correct

correlation timing when the first and second correlation results are substantially equal to each other.

~~28.~~⁴ (new) A system for reducing the effects of multipath signal components associated with a received direct path signal comprising a carrier signal that is modulated by a repetitive pseudo-random noise (PRN) code comprising:

A) a replica code generator for generating a replica code corresponding to the pseudo-random noise (PRN) code of the received signal;

B) means for correlating the received signal with the replica code to generate a first correlation result with a first delay time, where the first delay time is set outside of the assumed correlation function area;

C) means for correlating the received signal with the replica code to generate a second correlation result with a second delay time, where the second delay time is set between the first delay time and assumed correct delay time of the correlation function; and

D) means for determining if the correlation results of the first and second delay times are substantially equal to each other and if the first and second correlation results are not substantially equal to each other, for adjusting the correlation timing so as to cause the first and second correlation results to be substantially equal to each other.

~~29.~~⁵ (new) A system for reducing the effects of multipath signal components as defined in claim ~~28~~⁴, wherein the pseudo-random noise (PRN) code has a plurality of chips of code length, and wherein the first delay time is a delay of approximately -0.5 chip from the second delay time.

~~30.~~⁶ (new) A system for reducing the effects of multipath signal components as defined in claim ~~29~~⁵, wherein the second delay time is approximately one chip from the correct correlation timing when the first and second correlation results are substantially equal to each other.

~~31.~~⁷ (new) A device for reducing the effects of multipath signal components associated with a received direct path signal forming an overall received signal, wherein each component and direct path signal is modulated by a repetitive pseudo-random noise (PRN) code comprising:

- A) a replica code generator for generating a replica code corresponding to the pseudo-random noise (PRN) code of the received signal;
- B) means for correlating the received signal with the replica code to generate a first correlation result with a first delay time, where the first delay time is set outside of the assumed correlation function area;
- C) means for correlating the received signal with the replica code to generate a second correlation result with a second delay time, where the second delay time is set between the first delay time and assumed correct delay time of the correlation function; and
- D) a code phase detector receiving the outputs of the two correlating means for generating an adjustment signal for adjusting the timing of the replica code generator;

wherein the adjustment signal generated by the code phase detector causes an adjustment in the timing of the replica code generator until the correlation results of the first and second delay times are substantially equal to each other and, if the first and second correlation results are not substantially equal to each other, for adjusting the correlation timing so as to cause the first and second correlation results to be substantially equal to each other.

~~32.~~⁶ (new) A device for reducing the effects of multipath signal components as defined in claim ~~31~~⁷, wherein the pseudo-random noise (PRN) code has a plurality of chips of code length, and wherein the first delay time is a delay of approximately -0.5 chip from the second delay time.

~~33.~~⁹ (new) A device for reducing the effects of multipath signal components as defined in claim ~~32~~⁸, wherein the second delay time is approximately one chip from the correct correlation timing when the first and second correlation results are substantially equal to each other.

~~34.~~ ¹⁰ ~~7~~ (new) A device for reducing the effects of multipath signal components as defined in claim ~~31~~, wherein the adjustment of the timing of the replica code generator uses a numerically controlled oscillator (NCO).